Challenges for Modeling and Simulation



James L. Johnson Office of the Secretary of Defense Program Analysis and Evaluation

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burder for this collection of information is estibated to and reviewing this collection of information. Send comments regarding Headquarters Services, Directorate for Information Operations and Rej law, no person shall be subject to any penalty for failing to comply wit	g this burden estimate or any other aspect of this co ports (0704-0188), 1215 Jefferson Davis Highway,	llection of information, including suggestion Suite 1204, Arlington, VA 22202-4302. Res	pondents should be aware that notwithstanding any other provision of	
1. REPORT DATE (DD-MM-YYYY) 01-06-2002	2. REPORT TYPE Briefing	3. D	OATES COVERED (FROM - TO) xx-2002 to xx-xx-2002	
4. TITLE AND SUBTITLE		5a. CON	5a. CONTRACT NUMBER	
Challenges for Modeling and Simulation		5b. GRAI	5b. GRANT NUMBER	
Unclassified		5c. PROC	5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)		5d. PROJ	ECT NUMBER	
Johnson, James L. ;			5e. TASK NUMBER	
			K UNIT NUMBER	
7. PERFORMING ORGANIZATION NA Office of the Secretary of Defense Program Analysis and Evaluation Washington, DCxxxxx	ME AND ADDRESS	8. PERFO NUMBEF	PRMING ORGANIZATION REPORT	
9. SPONSORING/MONITORING AGENCY NAME AND ADDRESS			10. SPONSOR/MONITOR'S ACRONYM(S)	
United States Department of Defense Defense Modeling and Simulation Office			11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
1901 N. Beauregard St., Suite 500 Alexandria, VA22311-1705				
12. DISTRIBUTION/AVAILABILITY ST APUBLIC RELEASE	FATEMENT	,		
13. SUPPLEMENTARY NOTES				
14. ABSTRACT Challenges for the Analytic Community				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:	OF ABSTRACT Public Release	18. 19. NAM NUMBER Fenster, OF PAGES fenster@		
a. REPORT b. ABSTRACT c. THI Unclassified Unclassified Uncla		Internationa	EPHONE NUMBER al Area Code Telephone Number 07	
			 Standard Form 20X (Rev. X-0X) 	

Prescribed by ANSI Std Z39.18

Challenges for the Analytic Community

Peacetime Engagement/SSCs

- Prioritizing regional security objectives
- Measuring effectiveness of peacetime engagement
- Combined exercising
- Assessing long-term deployments
- Developing compellence models
- Use of force criteria for SSCs
- Effects of SSCs on MTW readiness

Crisis Response and War

- Re-defining MTWs
- MTW base case assumptions
- Improving MTW modeling to take account of information, NBC, coalition interoperability, etc.

Prepare to Meet Future Threats

- Linkages between modernization and transformation
- Facilitating meaningful trade-offs among defense capabilities

Modeling and Simulation Strengths and Weaknesses

Strengths

- Study processes that rarely or never occur
- Evaluate a wide range of alternatives
- Generate new ideas, new concepts, innovative solutions

Dilemma

 To provide rapid response to decisionmakers and adequate visibility to know how to implement recommendations

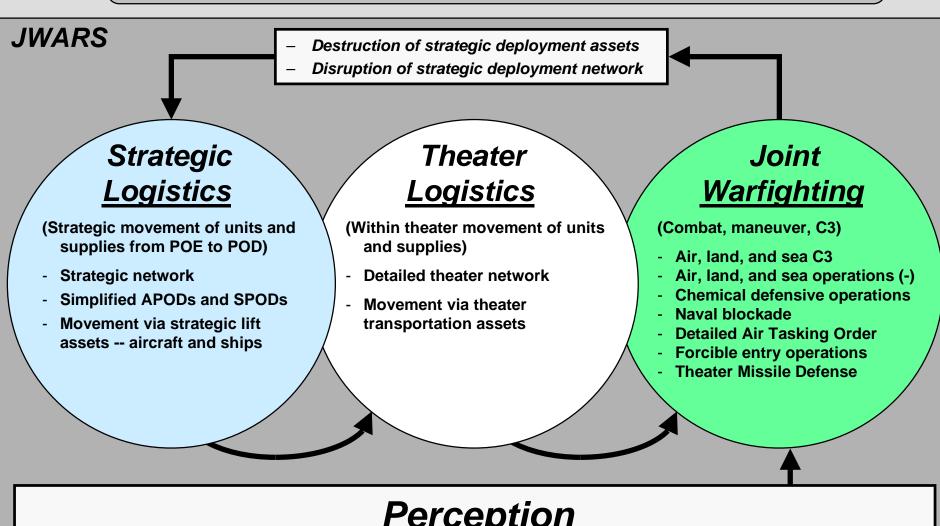
Weaknesses

- Time needed to complete comprehensive work
- Current state of data management
- Integration of multiple models

Future Initiatives

- Improve Simulation Models
 - JWARS
 - JSIMS
 - Coordination with Service initiatives
 - Coordination with studies program
- Improve Data Management
 - Joint Data Support
 - DMSO
- Improve Collaborative Analysis

Integrated Models Will Organize Better Data Management and Reduce Response Time



Perception

- Provide intelligence information

- Assess operational situation